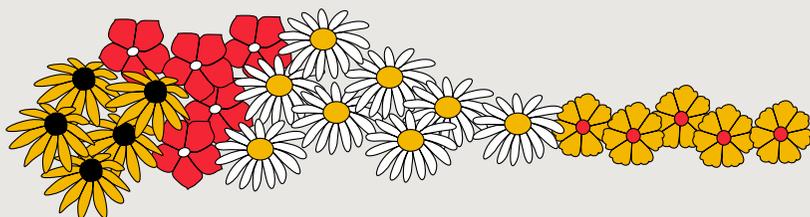


# WILDFLOWERS

*on North Carolina Roadsides*



North Carolina Department of Transportation  
Roadside Environmental Unit





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## INTRODUCTION

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The North Carolina Department of Transportation Wildflower Program began in 1985 as an integral part of highway beautification. Twelve acres were sown during the first year of production. Today, wildflower beds are installed and maintained across the state by Roadside Environmental personnel in each of the fourteen highway divisions.

This booklet is intended as a reference to identify the wildflowers planted by NCDOT, as well as some of the naturally occurring ones growing along North Carolina highways. Both botanical and common names are listed on the following pages. Photographs with descriptions and planting information are arranged alphabetically.

This guide also contains the installation techniques used by Roadside Environmental personnel, as well as instructions for planting your own wildflowers at home.

We hope this booklet will be useful as you drive along our highways and in your own wildflower gardening endeavors. Remember, for your own safety, do not stop and pick the wildflowers. Please leave them for everyone to enjoy!



### QUICK FACTS ABOUT THE WILDFLOWER PROGRAM

- ✿ Former First Lady Dottie Martin (pictured to the left), wife of former Gov. Jim Martin, is credited with initiating the idea for the N.C. program after reading an article in the Wall Street Journal about wildflower beds in Texas.
- ✿ Tourism in North Carolina provides \$18 billion to the state's economy annually. Since most visitors arrive by vehicle, the Wildflower Program plays a particularly important role in making the state an appealing destination. The program is one of NCDOT's most popular initiatives, and receives hundreds of comments of praise each year from residents and visitors alike.
- ✿ Today's Wildflower Program consists of one-third of each — annuals, perennials and N.C. native wildflowers.
  - ✿ The native species planted each year along state roadsides include Claspwing Coneflower (*Rudbeckia amplexicaulis*), Bur-Marigold (*Bidens aristosa*), Common Sunflower (*Helianthus annuus*) and Maximilian Sunflower (*Helianthus maximiliani*), to name a few.
- ✿ Wildflowers serve as sources of nectar for pollinator species including bees, butterflies and moths. (See page 33 for more on pollinators.)
- ✿ The Garden Club of North Carolina is the lead sponsor of the Wildflower Program. Other important partners include N.C. State University and the N.C. Department of Agriculture and Consumer Services.

# BOTANICAL NAME

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# COMMON NAME

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Ageratum .....	12	Bird's Eyes .....	14	Lance-Leaved Coreopsis .....	9	White Wood Aster .....	2
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Baby Blue Eyes .....	21	Blue Cardinal Flower .....	20	Little Black-Eyed Susan .....	24	Wild Cotton .....	17
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				Mountain Garland .....	8	Yellow Crown-Beard .....	29
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California Poppy, Red Poppy, Cornflower and Ox-Eye Daisy mix



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**Genus and Species:** *Achillea millefolium*  
**Family:** Asteraceae  
**Common Name:** Yarrow, Milfoil  
**Habit:** perennial, reseeds  
**Height:** 2 feet  
**Flower Color:** white  
**Native To:** Europe  
**Range:** throughout temperate North America  
**Blooming Period:** May–July  
**Water Requirement:** low, drought tolerant  
**Soil Type:** light, rich or sterile  
**Exposure:** full sun  
**Seed Count:** 2,770,000 seeds/lb.  
**Seeding Rate:** 1 lb./acre  
**Miscellaneous:** very competitive; controls soil erosion; foliage has pleasant smell when crushed



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**Genus and Species:** *Agalinis purpurea*  
**Family:** Scrophulariaceae  
**Common Name:** Gerardia  
**Habit:** annual  
**Height:** 2–3 feet  
**Flower Color:** rose-lavender, rarely white  
**Native To:** eastern United States  
**Range:** throughout North Carolina  
**Blooming Period:** August–frost  
**Water Requirement:** moderate  
**Soil Type:** moist  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** semi-parasitic on the roots of grasses



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**Genus and Species:** *Asclepias incarnata*  
**Family:** Asclepiadaceae  
**Common Name:** Swamp Milkweed  
**Habit:** perennial  
**Height:** 2–4 feet  
**Flower Color:** pink  
**Native To:** North America  
**Range:** Nova Scotia south to Florida; west to Utah  
**Blooming Period:** July–September  
**Water Requirement:** low to high  
**Soil Type:** will tolerate poorly-drained soil  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** there are 1,900 species of milkweeds; attracts birds and butterflies




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**Genus and Species:** *Asclepias tuberosa*  
**Family:** *Asclepiadaceae*  
**Common Name:** Butterfly Weed, Pleurisy Root  
**Habit:** hardy, long-lived perennial  
**Height:** 12–36 inches  
**Flower Color:** orange  
**Native To:** North America  
**Range:** all regions of United States  
**Blooming Period:** June–September  
**Water Requirement:** low  
**Soil Type:** requires well-drained soil, sandy, neutral or slightly acidic  
**Exposure:** full sun  
**Seed Count:** 87,000 seeds/lb.  
**Seeding Rate:** 10 lbs./acre  
**Miscellaneous:** produces large quantities of nectar throughout blooming period which attracts butterflies; takes up to two years to become established




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**Genus and Species:** *Aster novae-angliae*  
**Family:** *Asteraceae*  
**Common Name:** New England Aster  
**Habit:** perennial, reseeds  
**Height:** 3–3½ feet  
**Flower Color:** blue to purple to white  
**Native To:** United States  
**Range:** southern Canada south to western North Carolina and westward  
**Blooming Period:** August–frost  
**Water Requirement:** low to moderate  
**Soil Type:** heavy or light  
**Exposure:** full sun  
**Seed Count:** 1,305,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** one of the showiest wild asters; tends to become bushy; attracts birds and butterflies; plants need to be divided every two to three years




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**Genus and Species:** *Aster divaricatus*  
**Family:** *Asteraceae*  
**Common Name:** White Wood Aster  
**Habit:** perennial  
**Height:** 1–3 feet  
**Flower Color:** white with yellow or red center  
**Native To:** North America  
**Range:** West Virginia, Virginia, North Carolina, Tennessee, Georgia and Alabama  
**Blooming Period:** July–October  
**Water Requirement:** low to moderate  
**Soil Type:** average to poor  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** attracts birds and butterflies




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**Genus and Species:** *Aster pilosus*  
**Family:** *Asteraceae*  
**Common Name:** Frost Aster  
**Habit:** perennial  
**Height:** 1–4 feet  
**Flower Color:** white, rarely lavender  
**Native To:** North America  
**Range:** Virginia, North Carolina, Tennessee, Georgia, Kentucky, Alabama and Mississippi  
**Blooming Period:** September–November  
**Water Requirement:** low  
**Soil Type:** average garden soil  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** attracts birds and butterflies




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**Genus and Species:** *Aster grandiflorus*  
**Family:** *Asteraceae*  
**Common Name:** Wild Blue Aster  
**Habit:** perennial  
**Height:** 2–5 feet  
**Flower Color:** blue  
**Native To:** North America  
**Range:** lower Piedmont of North Carolina to Virginia  
**Blooming Period:** September–October  
**Water Requirement:** low to moderate  
**Soil Type:** poor to average  
**Exposure:** sun to partial shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** there are more than 150 species of asters in North America; attracts birds and butterflies




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**Genus and Species:** *Bidens aristosa*  
**Family:** *Asteraceae*  
**Common Name:** Bur-Marigold, Tickseed, Beggar Ticks  
**Habit:** annual  
**Height:** 1–5 feet  
**Flower Color:** yellow  
**Native To:** New England south to North Carolina; west to Texas; north to Missouri and Minnesota  
**Range:** Midwest, Northeast, Southeast, Texas to Oklahoma  
**Blooming Period:** August–frost  
**Water Requirement:** moderate to high  
**Soil Type:** average garden soil  
**Exposure:** sun, open shade  
**Seed Count:** N/A  
**Seeding Rate:** 3 lbs./acre  
**Miscellaneous:** similar to *Bidens polylepis*, but has slightly larger flowers



**Genus and Species:** *Cassia fasciculata*  
**Family:** *Fabaceae*  
**Common Name:** Partridge Pea  
**Habit:** branching annual  
**Height:** 2 feet  
**Flower Color:** yellow  
**Native To:** eastern and central United States  
**Range:** Massachusetts to Florida  
**Blooming Period:** June–September  
**Water Requirement:** low  
**Soil Type:** sandy to clay  
**Exposure:** full sun  
**Seed Count:** 28,000 seeds/lb.  
**Seeding Rate:** 15 lbs./acre  
**Miscellaneous:** attracts birds and butterflies



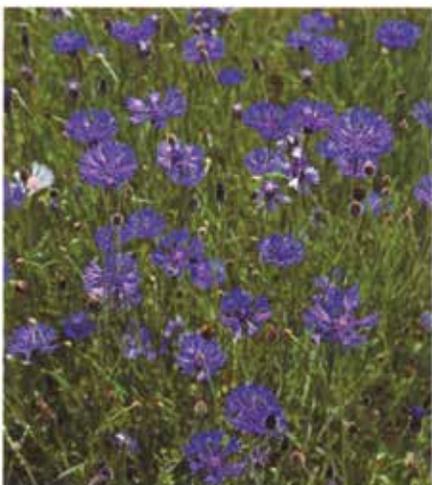
**Genus and Species:** *Cheiranthus allionii* or *Erysimum hieracifolium*  
**Family:** *Brassicaceae*  
**Common Name:** Siberian Wall Flower  
**Habit:** biennial  
**Height:** 10–18 inches  
**Flower Color:** orange  
**Native To:** Canary Island  
**Range:** northern North America  
**Blooming Period:** March–May  
**Water Requirement:** moderate  
**Soil Type:** well-drained  
**Exposure:** partial shade, full shade  
**Seed Count:** 340,194 seeds/lb.  
**Seeding Rate:** 6 lbs./acre  
**Miscellaneous:** transplants well; light fragrance



**Genus and Species:** *Castilleja coccinea*  
**Family:** *Scrophulariaceae*  
**Common Name:** Indian Paintbrush, Scarlet Paint-Cup  
**Habit:** annual  
**Height:** 8–24 inches  
**Flower Color:** red  
**Native To:** North America  
**Range:** southern Manitoba to north Florida; west to Louisiana and Oklahoma  
**Blooming Period:** April–July  
**Water Requirement:** high  
**Soil Type:** good to rich garden soil  
**Exposure:** full sun  
**Seed Count:** 4,915,200 seeds/lb.  
**Seeding Rate:** 1 lb./acre  
**Miscellaneous:** adapted to low-lying moist areas in full sun; the red brush-like brackets appear to have been dipped in paint as suggested by the common name



**Genus and Species:** *Chelone lyonii*  
**Family:** *Scrophulariaceae*  
**Common Name:** Turtlehead, Snakehead  
**Habit:** perennial  
**Height:** 1–3 feet  
**Flower Color:** purple-rose  
**Native To:** northeastern United States  
**Range:** mountains of North Carolina, South Carolina, Georgia, Tennessee and Virginia  
**Blooming Period:** July–October  
**Water Requirement:** moderate to wet  
**Soil Type:** rich coves and bogs  
**Exposure:** sun to partial shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** requires humus-rich soil kept constantly moist



**Genus and Species:** *Centaurea cyanus*  
**Family:** *Asteraceae*  
**Common Name:** Cornflower, Bachelor's Button  
**Habit:** annual, reseeds  
**Height:** 2½ feet  
**Flower Color:** blue  
**Native To:** Europe  
**Range:** naturalized throughout North America  
**Blooming Period:** April–June  
**Water Requirement:** low, drought tolerant  
**Soil Type:** light, sterile  
**Exposure:** full sun to partial shade  
**Seed Count:** 96,000 seeds/lb.  
**Seeding Rate:** 4 lbs./acre  
**Miscellaneous:** easily grown; also available commercially in white, pink and burgundy colors; excellent for dried flower arrangements



**Genus and Species:** *Chrysanthemum carinatum*  
**Family:** *Asteraceae*  
**Common Name:** Painted Daisy, Tri-Color Chrysanthemum  
**Habit:** annual, reseeds  
**Height:** 18–30 inches  
**Flower Color:** red, yellow, orange, white and purple  
**Native To:** Morocco  
**Range:** naturalized throughout United States  
**Blooming Period:** spring–summer  
**Water Requirement:** low  
**Soil Type:** heavy or light  
**Exposure:** full sun  
**Seed Count:** 235,000 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** competes well with grasses; very aggressive; attracts birds and butterflies



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**Genus and Species:** *Chrysanthemum coronarium*  
**Family:** Asteraceae  
**Common Name:** Garland Chrysanthemum  
**Habit:** annual, reseeds  
**Height:** 1–5 feet  
**Flower Color:** yellow, rarely white  
**Native To:** Europe  
**Range:** naturalized throughout eastern United States and Canada  
**Blooming Period:** spring–fall  
**Water Requirement:** low  
**Soil Type:** light  
**Exposure:** full sun  
**Seed Count:** 288,000 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** prolific bloomer; attracts birds and butterflies



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**Genus and Species:** *Chrysogonum virginianum*  
**Family:** Asteraceae  
**Common Name:** Green and Gold, Golden Star  
**Habit:** perennial groundcover  
**Height:** 1 foot  
**Flower Color:** yellow  
**Native To:** central Atlantic region  
**Range:** Piedmont and Coastal Plain  
**Blooming Period:** April–October  
**Water Requirement:** low  
**Soil Type:** fertile, well-drained  
**Exposure:** open deciduous forest, full sun to filtered sunlight  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** an outstanding long-blooming semi-evergreen groundcover



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**Genus and Species:** *Chrysanthemum leucanthemum*  
**Family:** Asteraceae  
**Common Name:** Ox-Eye Daisy  
**Habit:** perennial  
**Height:** 1–2 feet  
**Flower Color:** white  
**Native To:** Europe and Asia  
**Range:** all regions of the United States  
**Blooming Period:** April–July  
**Water Requirement:** moderate  
**Soil Type:** light, ordinary garden soil  
**Exposure:** full sun  
**Seed Count:** 859,000 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** thought to hold medicinal value; attracts birds and butterflies; excellent cut flower; a mainstay of any wildflower program



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**Genus and Species:** *Chrysopsis graminifolia*  
**Family:** Asteraceae  
**Common Name:** None  
**Habit:** perennial  
**Height:** 1–3 feet  
**Flower Color:** yellow  
**Native To:** North America  
**Range:** throughout Piedmont North Carolina, Virginia, Georgia, Alabama and Mississippi  
**Blooming Period:** July–October  
**Water Requirement:** low to moderate  
**Soil Type:** average garden soil  
**Exposure:** sun to partial shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** silver-gray grass-like foliage; also know botanically as *Heterotheca graminifolia*



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**Genus and Species:** *Chrysanthemum maximum*  
**Family:** Asteraceae  
**Common Name:** Shasta Daisy  
**Habit:** perennial  
**Height:** 1–3 feet  
**Flower Color:** white  
**Native To:** Europe and Asia  
**Range:** all regions of the United States  
**Blooming Period:** April–July  
**Water Requirement:** moderate  
**Soil Type:** prefers fertile soil  
**Exposure:** sun to partial shade  
**Seed Count:** 436,000 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** generally grows 6 to 12 inches taller than Ox-Eye Daisies and flowers are larger; excellent cut flower



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**Genus and Species:** *Chrysopsis mariana*  
**Family:** Asteraceae  
**Common Name:** Maryland Golden Aster  
**Habit:** perennial  
**Height:** 1–2 feet  
**Flower Color:** yellow  
**Native To:** eastern United States  
**Range:** Maryland, Virginia, North Carolina, Kentucky, Tennessee, Georgia, Florida, Alabama and Mississippi  
**Blooming Period:** June–October  
**Water Requirement:** low to average  
**Soil Type:** average to poor  
**Exposure:** full sun  
**Seed Count:** 192,000 seeds/lb.  
**Seeding Rate:** N/A  
**Miscellaneous:** low maintenance; also known botanically as *Heterotheca mariana*



**Genus and Species:** *Cichorium intybus*  
**Family:** Asteraceae  
**Common Name:** Chicory, Blue Sailors  
**Habit:** perennial  
**Height:** 2–4 feet  
**Flower Color:** blue  
**Native To:** Europe  
**Range:** throughout United States  
**Blooming Period:** May–October  
**Water Requirement:** low  
**Soil Type:** well-drained  
**Exposure:** full sun  
**Seed Count:** 426,000 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** used to make coffee during World War II; flowers remain on plant for one day



**Genus and Species:** *Coreopsis lanceolata*  
**Family:** Asteraceae  
**Common Name:** Lance-leaved Coreopsis, Tickseed  
**Habit:** perennial, reseeds  
**Height:** 3 feet  
**Flower Color:** yellow  
**Native to:** United States, east of the Rocky Mountains  
**Range:** throughout North America  
**Blooming Period:** April–July  
**Water Requirement:** low, withstands drought and prolonged periods of wetness  
**Soil Type:** heavy or light, rich or sterile  
**Exposure:** full sun to light shade  
**Seed Count:** 221,000 seeds/lb.  
**Seeding Rate:** 10 lbs./acre  
**Miscellaneous:** readily reseeds; competes well with grasses; attracts birds and butterflies



**Genus and Species:** *Clarkia unguiculata*  
**Family:** Onagraceae  
**Common Name:** Mountain Garland  
**Habit:** annual  
**Height:** 2–3 feet  
**Flower Color:** multi-colored, burgundy, pink  
**Native To:** United States  
**Range:** United States  
**Blooming Period:** May–July  
**Water Requirement:** moderate  
**Soil Type:** well-drained  
**Exposure:** partial shade, full shade  
**Seed Count:** 1,587,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** attractive variety for floral arrangements; also called *Clarkia elegans*



**Genus and Species:** *Coreopsis tinctoria*  
**Family:** Asteraceae  
**Common Name:** Plains Coreopsis, Garden Coreopsis, Calliopsis  
**Habit:** annual, reseeds  
**Height:** 3 feet  
**Flower Color:** yellow with maroon centers  
**Native To:** southwest United States  
**Range:** naturalized throughout the United States  
**Blooming Period:** May–August  
**Water Requirement:** low  
**Soil Type:** sterile  
**Exposure:** full sun, partial shade  
**Seed Count:** 1,400,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** prolific bloomer; competes well with grasses; readily reseeds; attracts birds and butterflies



**Genus and Species:** *Clematis virginiana*  
**Family:** Ranunculaceae  
**Common Name:** Virgin's Bower, Common Clematis  
**Habit:** perennial vine  
**Height:** stem 6–10 feet long  
**Flower Color:** white  
**Native to:** eastern United States  
**Range:** Manitoba to Nova Scotia; south from New England to Georgia; west to Alabama, Mississippi and Louisiana; north to Kansas  
**Blooming Period:** July–September  
**Water Requirement:** moist to average  
**Soil Type:** rich to average  
**Exposure:** sun to light shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** attractive fruit; tendency to spread has caused many to avoid its use



**Genus and Species:** *Cosmos bipinnatus*  
**Family:** Asteraceae  
**Common Name:** Cosmos  
**Habit:** annual, reseeds  
**Height:** 3–5 feet  
**Flower Color:** white to pink to reddish-burgundy  
**Native To:** southwestern United States  
**Range:** southern and coastal United States  
**Blooming Period:** June–frost  
**Water Requirement:** low, drought tolerant  
**Soil Type:** sterile  
**Exposure:** full sun  
**Seed Count:** 89,000 seeds/lb.  
**Seeding Rate:** 10–15 lbs./acre  
**Miscellaneous:** plant in spring or summer (it is not winter hardy); performs best in less fertile soils; attracts birds and butterflies




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**Genus and Species:** *Cosmos sulphureus*  
**Family:** Asteraceae  
**Common Name:** Sulphur Cosmos  
**Habit:** annual  
**Height:** 3–5 feet  
**Flower Color:** yellow or mix of yellow, orange and red  
**Native To:** southwestern United States  
**Range:** southern and coastal United States  
**Blooming Period:** June–frost  
**Water Requirement:** low, drought tolerant  
**Soil Type:** sandy, well-drained, sterile  
**Exposure:** full sun  
**Seed Count:** 63,000 seeds/lb.  
**Seeding Rate:** 10–15 lbs./acre  
**Miscellaneous:** plant in spring or summer (it is not winter hardy); blooms in 4 to 6 weeks




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**Genus and Species:** *Dracocephalum virginianum*  
**Family:** Lamiaceae  
**Common Name:** Obedient Plant  
**Habit:** perennial  
**Height:** 1–4 feet  
**Flower Color:** pink, lavender  
**Native To:** North America  
**Range:** New Brunswick and Quebec south to Florida; west to Mississippi; north to Missouri and Minnesota  
**Blooming Period:** June–September  
**Water Requirement:** high  
**Soil Type:** good garden soil  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** grows best in damp thickets, swamps and roadside ditches




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**Genus and Species:** *Daucus carota*  
**Family:** Apiaceae  
**Common Name:** Queen Anne's Lace, Wild Carrot  
**Habit:** biennial  
**Height:** 4–5 feet  
**Flower Color:** white, rarely pale purple  
**Native To:** Afghanistan  
**Range:** naturalized throughout eastern United States  
**Blooming Period:** June–July  
**Water Requirement:** low  
**Soil Type:** average garden soil to barren dry soils  
**Exposure:** full sun to at least a half day's full sun  
**Seed Count:** 876,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** the root contains carotin, sometimes grated and mixed with oil to soothe sunburn; attracts birds and butterflies




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**Genus and Species:** *Echinacea laevigata*  
**Family:** Asteraceae  
**Common Name:** Smooth Coneflower  
**Habit:** perennial  
**Height:** 1–3 feet  
**Flower Color:** pink  
**Native To:** Granville, Durham and Orange counties in North Carolina  
**Range:** eastern United States  
**Blooming Period:** June–August  
**Water Requirement:** moderate  
**Soil Type:** sterile to fertile  
**Exposure:** sun to filtered sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** this is a federally endangered plant; unlawful to pick flowers, collect seeds or dig plants




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**Genus and Species:** *Delphinium ajacis*  
**Family:** Ranunculaceae  
**Common Name:** Rocket Larkspur  
**Habit:** annual  
**Height:** 3–6 feet  
**Flower Color:** pink, purple, white and dark blue  
**Native To:** Europe  
**Range:** southern Europe  
**Blooming Period:** April–September  
**Water Requirement:** moderate  
**Soil Type:** well-drained  
**Exposure:** full sun to partial shade  
**Seed Count:** 150,000 seeds/lb.  
**Seeding Rate:** 10 lbs./acre  
**Miscellaneous:** a delightful and easy to grow garden favorite; marvelous plant to accent any cut flower arrangement




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**Genus and Species:** *Echinacea purpurea*  
**Family:** Asteraceae  
**Common Name:** Purple Coneflower  
**Habit:** perennial, reseeds  
**Height:** 2–3 feet  
**Flower Color:** reddish-purple  
**Native To:** Midwestern and southeastern United States  
**Range:** naturalized throughout Midwest, Northeast and Southeast  
**Blooming Period:** May–August  
**Water Requirement:** low, fairly drought tolerant  
**Soil Type:** heavy or light  
**Exposure:** full sun  
**Seed Count:** 117,000 seeds/lb.  
**Seeding Rate:** 12 lbs./acre  
**Miscellaneous:** performs best in cooler climates without irrigation; withstands very dry conditions; excellent cut flower



**Genus and Species:** *Eschscholzia californica*  
**Family:** Papaveraceae  
**Common Name:** California Poppy  
**Habit:** annual or tender perennial, reseeds  
**Height:** 18 inches  
**Flower Color:** orange  
**Native To:** California  
**Range:** Alberta south to Mexico, eastward to Colorado  
**Blooming Period:** spring–summer  
**Water Requirement:** low, drought tolerant  
**Soil Type:** light, sterile  
**Exposure:** full sun  
**Seed Count:** 293,000 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** very adaptable; grows almost anywhere within natural range; state flower of California; blooms close at night or on cloudy day; foliage is bluish-green; excellent flower for pressing



**Genus and Species:** *Eupatorium hyssopifolium*  
**Family:** Asteraceae  
**Common Name:** Thoroughwort  
**Habit:** perennial  
**Height:** 2–3 feet  
**Flower Color:** white  
**Native To:** North America  
**Range:** southern Ontario to New Brunswick; south through New England to Virginia and upland Georgia; west to Louisiana; northwest to Texas  
**Blooming Period:** August–October  
**Water Requirement:** low  
**Soil Type:** poor to average  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** attractive fruit



**Genus and Species:** *Eupatorium coelestinum*  
**Family:** Asteraceae  
**Common Name:** Ageratum, Mistflower, Blue Boneset  
**Habit:** perennial  
**Height:** 1–3 feet  
**Flower Color:** blue, violet  
**Native To:** southeastern United States  
**Range:** scattered throughout Southeast  
**Blooming Period:** July–October  
**Water Requirement:** moderate to high  
**Soil Type:** average garden soil  
**Exposure:** full sun to partial shade  
**Seed Count:** 3,200,000 seeds/lb.  
**Seeding Rate:** N/A  
**Miscellaneous:** rare in mountains of North Carolina; less frequent in Piedmont; withstands hot, humid summer weather



**Genus and Species:** *Gaillardia pulchella*  
**Family:** Asteraceae  
**Common Name:** Indian Blanket, Firewheel, Showy Gaillardia, Annual Gaillardia  
**Habit:** annual, reseeds  
**Height:** 1–2 feet  
**Flower Color:** red with yellow tips  
**Native To:** United States, east of the Rocky Mountains throughout the Midwest  
**Range:** naturalized in the southeastern United States  
**Blooming Period:** summer–frost  
**Water Requirement:** low  
**Soil Type:** sandy  
**Exposure:** full sun  
**Seed Count:** 153,000 seeds/lb.  
**Seeding Rate:** 10 lbs./acre  
**Miscellaneous:** color varies to solid red or yellow



**Genus and Species:** *Eupatorium fistulosum*  
**Family:** Asteraceae  
**Common Name:** Joe-Pye-Weed, Queen-of-the-Meadow  
**Habit:** perennial  
**Height:** 2–10 feet  
**Flower Color:** pink to lavender  
**Native To:** North America  
**Range:** throughout eastern United States, across southern Canada and northern United States  
**Blooming Period:** July–August  
**Water Requirement:** moderate  
**Soil Type:** moist to wet  
**Exposure:** full sun to filtered  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** once used to cure fevers; folklore tells that an Indian, “Joe Pye,” used this plant to cure fevers



**Genus and Species:** *Gilia capitata*  
**Family:** Polemoniaceae  
**Common Name:** Blue Thimble Flower, Globe Gilia  
**Habit:** annual, reseeds  
**Height:** 1–2 feet  
**Flower Color:** blue  
**Native To:** California  
**Range:** Alaska; northern California to British Columbia; east to Idaho  
**Blooming Period:** spring  
**Water Requirement:** low, drought tolerant  
**Soil Type:** light  
**Exposure:** full sun to partial shade, tolerates full shade  
**Seed Count:** 1,020,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** tends to become bushy



**Genus and Species:** *Gilia tricolor*  
**Family:** Polemoniaceae  
**Common Name:** Bird's Eyes  
**Habit:** annual  
**Height:** 12–24 inches  
**Flower Color:** white, pink with dark center  
**Native To:** western United States  
**Range:** western United States  
**Blooming Period:** spring, early summer  
**Water Requirement:** moderate  
**Soil Type:** well-drained  
**Exposure:** full sun  
**Seed Count:** 1,020,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** flowers are fragrant; retains color when dried



**Genus and Species:** *Helianthus angustifolius*  
**Family:** Asteraceae  
**Common Name:** Narrow-Leaved Sunflower, Swamp Sunflower  
**Habit:** perennial  
**Height:** 3–6 feet  
**Flower Color:** yellow  
**Native To:** southeastern United States  
**Range:** Coastal Plain and lower Piedmont of North Carolina, rare in mountains  
**Blooming Period:** August–frost  
**Water Requirement:** moderate  
**Soil Type:** average garden soil  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** rare in upper Piedmont and mountains; can tolerate wet soils



**Genus and Species:** *Gnaphalium obtusifolium*  
**Family:** Asteraceae  
**Common Name:** Rabbit Tobacco, Catfoot  
**Habit:** biennial  
**Height:** 1–4 feet  
**Flower Color:** white  
**Native To:** North America  
**Range:** throughout eastern North America  
**Blooming Period:** August–October  
**Water Requirement:** low  
**Soil Type:** poor to average  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** leaves are sometimes smoked hence the common name; leaves are white or grayish white



**Genus and Species:** *Helianthus annuus*  
**Family:** Asteraceae  
**Common Name:** Common Sunflower  
**Habit:** annual  
**Height:** 4–6 feet  
**Flower Color:** black heads surrounded by bright yellow ray petals  
**Native To:** North America  
**Range:** United States  
**Blooming Period:** May–September  
**Water Requirement:** moderate  
**Soil Type:** average, well-drained  
**Exposure:** full sun  
**Seed Count:** 60,000 seeds/lb.  
**Seeding Rate:** 3 lbs./acre  
**Miscellaneous:** Goldfinch and other birds love the seeds; allow the flower-heads to dry on the stalk to attract birds



**Genus and Species:** *Helenium amarum*  
**Family:** Asteraceae  
**Common Name:** Bitter Sneezeweed  
**Habit:** annual  
**Height:** 1–2 feet  
**Flower Color:** yellow  
**Native To:** southeastern United States  
**Range:** throughout North Carolina  
**Blooming Period:** May–frost  
**Water Requirement:** low  
**Soil Type:** average  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** rare in mountains; pest in pastures—causes milk to have bitter taste



**Genus and Species:** *Helianthus atrorubens*  
**Family:** Asteraceae  
**Common Name:** Wild Sunflower, Dark-Eyed Sunflower  
**Habit:** perennial  
**Height:** 2–5 feet  
**Flower Color:** yellow  
**Native To:** North America  
**Range:** North Carolina, Virginia, Georgia, Tennessee and Kentucky  
**Blooming Period:** August–October  
**Water Requirement:** moderate  
**Soil Type:** average, well-drained  
**Exposure:** full sun  
**Seed Count:** 58,500 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** attractive flowers; some contain purple disks




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**Genus and Species:** *Helianthus maximiliani*  
**Family:** Asteraceae  
**Common Name:** Maximilian Sunflower  
**Habit:** perennial  
**Height:** 3–9 feet  
**Flower Color:** yellow  
**Native To:** North America  
**Range:** Saskatchewan and Manitoba; Minnesota south to Missouri, Oklahoma and Texas  
**Blooming Period:** July–frost  
**Water Requirement:** low  
**Soil Type:** average, well-drained  
**Exposure:** full sun  
**Seed Count:** 182,000 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** produces heavy crop of seeds; attracts birds; good forage for wildlife; takes two years to become established




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**Genus and Species:** *Hibiscus moscheutos*  
**Family:** Malvaceae  
**Common Name:** Marsh Mallow, Swamp Rose Mallow, Wild Cotton  
**Habit:** annual  
**Height:** 12–14 inches  
**Flower Color:** pink to creamy white, red or purple centers  
**Native To:** North America  
**Range:** coastal areas from Massachusetts to Florida  
**Blooming Period:** July–September  
**Water Requirement:** high  
**Soil Type:** rich  
**Exposure:** full sun  
**Seed Count:** 48,000 seeds/lb.  
**Seeding Rate:** N/A  
**Miscellaneous:** often found in upper wetlands; susceptible to Japanese beetles




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**Genus and Species:** *Hemerocallis fulva*  
**Family:** Liliaceae  
**Common Name:** Orange Daylily  
**Habit:** perennial  
**Height:** 3–6 feet  
**Flower Color:** orange  
**Native To:** central Europe to China, especially Japan  
**Range:** eastern United States  
**Blooming Period:** May–June  
**Water Requirement:** moderate  
**Soil Type:** average  
**Exposure:** sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** best propagated by division; best time to divide in early spring or fall; commonly found in ditch banks along roadsides




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**Genus and Species:** *Kosteletzkya virginica*  
**Family:** Malvaceae  
**Common Name:** Seashore Mallow  
**Habit:** perennial  
**Height:** 1–5 feet or more  
**Flower Color:** pink  
**Native To:** North America  
**Range:** Long Island south to Florida; west to Louisiana  
**Blooming Period:** May–October  
**Water Requirement:** high  
**Soil Type:** good garden soil  
**Exposure:** full sun to filtered shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** natural habitat in the Southeast is brackish marshes in coastal counties




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**Genus and Species:** *Hesperis matronalis*  
**Family:** Brassicaceae  
**Common Name:** Dame's Rocket  
**Habit:** perennial  
**Height:** 1–4 feet  
**Flower Color:** violet, rarely white  
**Native To:** Europe  
**Range:** throughout United States  
**Blooming Period:** May–August  
**Water Requirement:** moist to moderate  
**Soil Type:** well-drained  
**Exposure:** partial shade to full sun  
**Seed Count:** 296,000 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** sweet fragrance; competes well with grasses




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**Genus and Species:** *Lathyrus latifolius*  
**Family:** Fabaceae  
**Common Name:** Sweet Pea  
**Habit:** perennial  
**Height:** trailing vine  
**Flower Color:** purplish-pink  
**Native To:** Europe  
**Range:** all regions of the United States  
**Blooming Period:** summer–fall  
**Water Requirement:** low to moderate  
**Soil Type:** heavy  
**Exposure:** full sun to partial shade  
**Seed Count:** 9,000 seeds/lb.  
**Seeding Rate:** 20 lbs./acre  
**Miscellaneous:** may be difficult to control in the West and Midwest



**Genus and Species:** *Lavatera trimestris*  
**Family:** Malvaceae  
**Common Name:** Rose Mallow, Tree Mallow  
**Habit:** annual, reseeds  
**Height:** 3–6 feet  
**Flower Color:** pink, ice-white, rose  
**Native To:** Europe  
**Range:** naturalized throughout Midwest and Southeast  
**Blooming Period:** summer–fall  
**Water Requirement:** moderate to high  
**Soil Type:** rich  
**Exposure:** full sun to partial shade  
**Seed Count:** 70,800 seeds/lb.  
**Seeding Rate:** 25 lbs./acre  
**Miscellaneous:** tolerates low pH; easily cultivated; fast growing; deeply rooted which makes transplanting difficult; not winter hardy



**Genus and Species:** *Lilium michauxii*  
**Family:** Liliaceae  
**Common Name:** Carolina Lily  
**Habit:** perennial  
**Height:** 3–3½ feet  
**Flower Color:** reddish-yellow (orange), spotted  
**Native To:** southeastern United States  
**Range:** Texas to West Virginia and the eastern mid-Atlantic states including North Carolina  
**Blooming Period:** July–August  
**Water Requirement:** low, medium water use  
**Soil Type:** sandy, dry to moist  
**Exposure:** partial shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** North Carolina's Official State Wildflower; adopted 2003; named for French botanist Andre Michaux



**Genus and Species:** *Lespedeza bicolor* "Natob"  
**Family:** Fabaceae  
**Common Name:** Lespedeza  
**Habit:** shrubby, perennial  
**Height:** 1–12 feet  
**Flower Color:** lavender to pink  
**Native To:** North America  
**Range:** throughout North Carolina  
**Blooming Period:** July–September  
**Water Requirement:** low, drought tolerant  
**Soil Type:** low fertility, slightly acidic, well-drained clay, sand, loam  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** good food for quail, dove and wild turkey



**Genus and Species:** *Linaria maroccana*  
**Family:** Scrophulariaceae  
**Common Name:** Toadflax, Baby Snapdragon, Spurred Snapdragon  
**Habit:** annual, reseeds  
**Height:** 1–2 feet  
**Flower Color:** bicolored with yellow and red, pink, white or purple  
**Native To:** Europe  
**Range:** naturalized throughout United States  
**Blooming Period:** March–May  
**Water Requirement:** low  
**Soil Type:** tolerates most soils  
**Exposure:** full sun to partial shade  
**Seed Count:** 6,850,000 seeds/lb.  
**Seeding Rate:** 0.5 lb./acre  
**Miscellaneous:** rapid bloomer; not winter hardy; do not sow seed too deeply



**Genus and Species:** *Liatris spicata*  
**Family:** Asteraceae  
**Common Name:** Dense Blazing Star, Spiked Gayfeather  
**Habit:** perennial, reseeds  
**Height:** 2–3 feet  
**Flower Color:** rosy-purple to lavender  
**Native To:** central United States  
**Range:** eastern and central United States  
**Blooming Period:** June–September  
**Water Requirement:** low, drought tolerant  
**Soil Type:** sterile  
**Exposure:** full sun  
**Seed Count:** 138,000 seeds/lb.  
**Seeding Rate:** 12 lbs./acre  
**Miscellaneous:** tolerates low pH soils; competes well with grasses; excellent in dried flower arrangements



**Genus and Species:** *Linaria vulgaris*  
**Family:** Scrophulariaceae  
**Common Name:** Butter and Eggs, Common Toadflax, Wild Snapdragon  
**Habit:** annual, reseeds  
**Height:** 1–3 feet  
**Flower Color:** yellow and orange  
**Native To:** Europe, Asia  
**Range:** throughout North America  
**Blooming Period:** summer  
**Water Requirement:** low, drought tolerant  
**Soil Type:** light, sterile  
**Exposure:** full sun to partial shade  
**Seed Count:** 4,096,000 seeds/lb.  
**Seeding Rate:** 0.75 lb./acre  
**Miscellaneous:** easily grown; orange coloration on lower lip attracts insects



**Genus and Species:** *Linum grandiflorum rubrum*  
**Family:** *Linaceae*  
**Common Name:** Scarlet Flax  
**Habit:** annual  
**Height:** 12–36 inches  
**Flower Color:** red  
**Native To:** northern Africa  
**Range:** Africa, southern Europe, northern North America  
**Blooming Period:** summer  
**Water Requirement:** dry, average, well-drained  
**Soil Type:** sandy, drought/dry  
**Exposure:** full sun  
**Seed Count:** 122,000 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** showy flowers with extended blooms



**Genus and Species:** *Monarda citriodora*  
**Family:** *Lamiaceae*  
**Common Name:** Lemon Mint, Purple Horse Mint  
**Habit:** annual  
**Height:** 2 feet  
**Flower Color:** pink to white with purple spots  
**Native To:** North America  
**Range:** Missouri to Nebraska, Utah, Texas and Arizona  
**Blooming Period:** May–August  
**Water Requirement:** low  
**Soil Type:** best in soils rich in limestone (basic pH)  
**Exposure:** full sun to partial shade  
**Seed Count:** 819,000 seeds/lb.  
**Seeding Rate:** 3 lbs./acre  
**Miscellaneous:** attracts birds and butterflies; crushed leaves release citrus aroma; excellent cut flower



**Genus and Species:** *Lobelia cardinalis*  
**Family:** *Campanulaceae*  
**Common Name:** Cardinal Flower  
**Habit:** short-lived perennial  
**Height:** 3–5 feet  
**Flower Color:** red  
**Native To:** Mexico  
**Range:** throughout eastern United States  
**Blooming Period:** June–September  
**Water Requirement:** moist to average  
**Soil Type:** average garden soil  
**Exposure:** sun to shade  
**Seed Count:** 8,600,000 seeds/lb.  
**Seeding Rate:** 0.5 lb./acre  
**Miscellaneous:** attracts hummingbirds; over-gathering has decreased its numbers; can be propagated from stem cuttings; may take up to two years to become established



**Genus and Species:** *Monarda didyma*  
**Family:** *Lamiaceae*  
**Common Name:** Bee Balm, Oswego Tea  
**Habit:** perennial  
**Height:** 3–6 feet  
**Flower Color:** red  
**Native To:** North America  
**Range:** throughout northeastern United States to southern Appalachians  
**Blooming Period:** June–August  
**Water Requirement:** moist to wet  
**Soil Type:** light  
**Exposure:** full sun to filtered sun  
**Seed Count:** N/A  
**Seeding Rate:** 3 lbs./acre  
**Miscellaneous:** attracts birds and butterflies; leaves give off pleasant mint odor when crushed



**Genus and Species:** *Lobelia siphilitica*  
**Family:** *Campanulaceae*  
**Common Name:** Great Blue Lobelia, Blue Cardinal Flower  
**Habit:** short-live perennial  
**Height:** 2–3 feet or more  
**Flower Color:** purple, blue, rarely white or pink  
**Native To:** northern and central United States  
**Range:** found only in western mountains of North Carolina  
**Blooming Period:** August–October  
**Water Requirement:** moderate  
**Soil Type:** average, moist  
**Exposure:** will tolerate sunny locations  
**Seed Count:** N/A  
**Seeding Rate:** N/A



**Genus and Species:** *Nemophila insignis*  
**Family:** *Hydrophyllaceae*  
**Common Name:** Baby Blue Eyes  
**Habit:** annual  
**Height:** 6–12 inches  
**Flower Color:** light blue with white center  
**Native To:** United States  
**Range:** United States  
**Blooming Period:** March–May  
**Water Requirement:** moderate  
**Soil Type:** light sandy  
**Exposure:** partial shade  
**Seed Count:** 258,000 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** an enjoyable and easily grown variety from seed; this low-growing plant requires little maintenance; does not transplant well



**Genus and Species:** *Oenothera fruticosa*  
**Family:** *Onagraceae*  
**Common Name:** Sundrops  
**Habit:** perennial  
**Height:** 2 feet  
**Flower Color:** yellow  
**Native To:** eastern United States  
**Range:** chiefly in mountains of North Carolina  
**Blooming Period:** May–August  
**Water Requirement:** average to dry  
**Soil Type:** good garden soil  
**Exposure:** full sun  
**Seed Count:** 2,032,000 seeds/lb.  
**Seeding Rate:** N/A  
**Miscellaneous:** appears to hybridize with other similar species and therefore are quite variable; flowers open during the day



**Genus and Species:** *Papaver rhoeas*  
**Family:** *Papaveraceae*  
**Common Name:** Corn Poppy, Flanders Poppy, Red Poppy  
**Habit:** annual, reseeds  
**Height:** 3 feet  
**Flower Color:** red  
**Native To:** Europe, Asia  
**Range:** throughout United States, predominantly in the Northeast and Midwest  
**Blooming Period:** April–July  
**Water Requirement:** low to moderate  
**Soil Type:** light  
**Exposure:** full sun to partial shade  
**Seed Count:** 3,200,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** common field poppy of Europe; contains no opium; must specify red when buying



**Genus and Species:** *Oenothera lamarckiana*  
**Family:** *Onagraceae*  
**Common Name:** Evening Primrose  
**Habit:** annual, reseeds  
**Height:** 1–3½ feet  
**Flower Color:** yellow  
**Native To:** unknown  
**Range:** naturalized throughout the United States  
**Blooming Period:** July–September  
**Water Requirement:** low  
**Soil Type:** light  
**Exposure:** full sun  
**Seed Count:** 864,000 seeds/lb.  
**Seeding Rate:** 3 lbs./acre  
**Miscellaneous:** tolerates high pH; flowers open in late afternoon; less aggressive than other *Oenothera* species



**Genus and Species:** *Phlox carolina*  
**Family:** *Polemoniaceae*  
**Common Name:** Carolina Phlox  
**Habit:** perennial  
**Height:** 3 feet  
**Flower Color:** pink  
**Native To:** North America  
**Range:** throughout North Carolina, southeastern United States  
**Blooming Period:** May–July  
**Water Requirement:** low  
**Soil Type:** light to heavy  
**Exposure:** full sun  
**Seed Count:** 907,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** attracts birds and butterflies



**Genus and Species:** *Papaver rhoeas*  
**Family:** *Papaveraceae*  
**Common Name:** Mixed Poppy, Shirley Poppy  
**Habit:** annual  
**Height:** 2–2½ feet  
**Flower Color:** white, pink and red  
**Native To:** Europe  
**Range:** throughout United States  
**Blooming Period:** April–July  
**Water Requirement:** low  
**Soil Type:** well-drained  
**Exposure:** full sun to partial shade  
**Seed Count:** 3,200,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** large showy flowers; inconspicuous foliage when in bloom; contains no opium; must specify mixed colors when buying



**Genus and Species:** *Phlox drummondii*  
**Family:** *Polemoniaceae*  
**Common Name:** Annual Phlox, Drummond Phlox  
**Habit:** annual, reseeds  
**Height:** 1–1½ feet  
**Flower Color:** red  
**Native To:** Texas  
**Range:** naturalized throughout southeastern United States into Florida  
**Blooming Period:** April–August  
**Water Requirement:** low  
**Soil Type:** light, rich  
**Exposure:** full sun  
**Seed Count:** 234,000 seeds/lb.  
**Seeding Rate:** 10 lbs./acre  
**Miscellaneous:** blooms longer if watered frequently; tends to become bushy; fragrant flowers attract birds and butterflies



**Genus and Species:** *Phlox drummondii*  
**Family:** Polemoniaceae  
**Common Name:** Annual Phlox, Drummond Phlox  
**Habit:** annual  
**Height:** 8–24 inches  
**Flower Color:** red, white, pink or variegated  
**Native To:** Texas  
**Range:** southeastern United States  
**Blooming Period:** April–July  
**Water Requirement:** low  
**Soil Type:** sandy  
**Exposure:** full sun  
**Seed Count:** 234,000 seeds/lb.  
**Seeding Rate:** 10 lbs./acre  
**Miscellaneous:** fragrant flowers attract birds and butterflies; grows chiefly in sandy soils in coastal areas; represents escaped horticulturally grown forms



**Genus and Species:** *Rudbeckia hirta*  
**Family:** Asteraceae  
**Common Name:** Black-Eyed Susan  
**Habit:** perennial, reseeds  
**Height:** 2–3 feet  
**Flower Color:** yellow-orange with brown centers  
**Native To:** United States, east of the Rocky Mountains  
**Range:** throughout North America  
**Blooming Period:** May–August  
**Water Requirement:** low to moderate  
**Soil Type:** heavy or light  
**Exposure:** full sun to partial shade  
**Seed Count:** 1,710,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** noxious weed in Hawaii; the state flower of Maryland; low maintenance



**Genus and Species:** *Rudbeckia amplexicaulis*  
**Family:** Asteraceae  
**Common Name:** Clasp Coneflower  
**Habit:** annual  
**Height:** 1½–2 feet  
**Flower Color:** black, cone-shaped heads surrounded by bright yellow petals  
**Native To:** southeastern United States  
**Range:** North America  
**Blooming Period:** June–September  
**Water Requirement:** moist  
**Soil Type:** average, well-drained  
**Exposure:** full sun  
**Seed Count:** 800,000 seeds/lb.  
**Seeding Rate:** 3 lbs./acre  
**Miscellaneous:** very heavy reseeder; wonderful variety for cut arrangements



**Genus and Species:** *Rudbeckia hirta* "Gloriosa"  
**Family:** Asteraceae  
**Common Name:** Gloriosa Daisy, Black-Eyed Susan  
**Habit:** perennial  
**Height:** 2–3 feet  
**Flower Color:** shades of bright yellow with red and mahogany, bi-colors  
**Native To:** southeastern United States  
**Range:** throughout the United States  
**Blooming Period:** May–August  
**Water Requirement:** low  
**Soil Type:** ordinary garden soil, preferably heavy  
**Exposure:** full sun  
**Seed Count:** 450,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** drought resistant; tetraploid form; also in doubles



**Genus and Species:** *Rudbeckia fulgida*  
**Family:** Asteraceae  
**Common Name:** Little Black-Eyed Susan  
**Habit:** short-lived perennial, reseeds  
**Height:** 2½–3 feet  
**Flower Color:** deep yellow, dark center  
**Native To:** southeastern United States  
**Range:** throughout United States  
**Blooming Period:** midsummer-early fall  
**Water Requirement:** low to moderate  
**Soil Type:** ordinary garden soil, preferably heavy  
**Exposure:** full sun  
**Seed Count:** 1,710,000 seeds/lb.  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** can spread by rhizomes



**Genus and Species:** *Rudbeckia laciniata*  
**Family:** Asteraceae  
**Common Name:** Green Coneflower, Wild Golden Glow  
**Habit:** perennial  
**Height:** 3–8 feet  
**Flower Color:** yellow  
**Native To:** North America  
**Range:** Quebec to northern Florida; west to the Rocky Mountains  
**Blooming Period:** July–October  
**Water Requirement:** moderate  
**Soil Type:** heavy to average, well-drained  
**Exposure:** full sun to light shade  
**Seed Count:** N/A  
**Seeding Rate:** 2 lbs./acre  
**Miscellaneous:** can spread by rhizomes



**Genus and Species:** *Salvia coccinea*  
**Family:** *Lamiaceae*  
**Common Name:** Wild Scarlet Sage  
**Habit:** hardy annual or tender perennial  
**Height:** 12–24 inches  
**Flower Color:** red  
**Native To:** Texas  
**Range:** all regions of United States  
**Blooming Period:** June–July  
**Water Requirement:** low to moderate  
**Soil Type:** sandy to gravelly  
**Exposure:** full sun  
**Seed Count:** 276,800 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** excellent species to attract hummingbirds and butterflies; excellent reseeder



**Genus and Species:** *Silene virginica*  
**Family:** *Caryophyllaceae*  
**Common Name:** Fire Pink, Indian Pink  
**Habit:** short-lived perennial  
**Height:** 1–2 feet  
**Flower Color:** crimson, pink, rarely white  
**Native To:** North Carolina  
**Range:** eastern United States  
**Blooming Period:** April–July  
**Water Requirement:** average  
**Soil Type:** average, well-drained  
**Exposure:** full sun to filtered sunlight  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** normally grows in dry, rocky woods and on road banks; more common in mountains



**Genus and Species:** *Silene armeria*  
**Family:** *Caryophyllaceae*  
**Common Name:** Catchfly, Champion, Sweet William Catchfly  
**Habit:** annual, reseeds  
**Height:** 1–2 feet  
**Flower Color:** pink  
**Native To:** southern Europe  
**Range:** naturalized throughout most of the United States  
**Blooming Period:** May–August  
**Water Requirement:** low to moderate  
**Soil Type:** heavy or light  
**Exposure:** full sun to partial shade  
**Seed Count:** 4,480,000 seeds/lb.  
**Seeding Rate:** 1 lb./acre  
**Miscellaneous:** easily grown; stem exudes a sticky sap which captures small insects



**Genus and Species:** *Sisyrinchium bellum*  
**Family:** *Iridaceae*  
**Common Name:** Blue-Eyed Grass  
**Habit:** perennial, reseeds  
**Height:** 1 foot  
**Flower Color:** blue with yellow center  
**Native To:** California  
**Range:** California north to Alaska; east to the Rocky Mountains  
**Blooming Period:** spring  
**Water Requirement:** moderate  
**Soil Type:** heavy or light, rich or sterile  
**Exposure:** full sun  
**Seed Count:** 315,000 seeds/lb.  
**Seeding Rate:** 8 lbs./acre  
**Miscellaneous:** flowers open in sunlight and last one day; foliage persists through fall and mild winters



**Genus and Species:** *Silene pendula*  
**Family:** *Caryophyllaceae*  
**Common Name:** Nodding Catchfly  
**Habit:** annual, reseeds  
**Height:** 1–2 feet  
**Flower Color:** pink, white  
**Native To:** southern Europe  
**Range:** naturalized throughout most of the United States  
**Blooming Period:** May–August  
**Water Requirement:** low to moderate  
**Soil Type:** heavy or light  
**Exposure:** full sun to partial shade  
**Seed Count:** 606,400 seeds/lb.  
**Seeding Rate:** 5 lbs./acre  
**Miscellaneous:** easily grown; stem exudes a sticky sap which captures small insects



**Genus and Species:** *Solidago nemoralis*  
**Family:** *Asteraceae*  
**Common Name:** Common Goldenrod  
**Habit:** perennial  
**Height:** 2–4 feet  
**Flower Color:** yellow  
**Native To:** eastern United States  
**Range:** widespread; eastern United States; throughout North Carolina  
**Blooming Period:** September–October  
**Water Requirement:** low  
**Soil Type:** average, well-drained  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A



**Genus and Species:** *Solidago rugosa*  
**Family:** Asteraceae  
**Common Name:** Rough-Leaved Goldenrod  
**Habit:** perennial  
**Height:** 2–4 feet  
**Flower Color:** yellow  
**Native To:** eastern United States  
**Range:** North Carolina, Virginia, Georgia, Alabama, Mississippi, Kentucky and West Virginia  
**Blooming Period:** September–October  
**Water Requirement:** low  
**Soil Type:** average to poor  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** low maintenance; good cut flower



**Genus and Species:** *Verbena alternifolia*  
**Family:** Asteraceae  
**Common Name:** Wingstem, Yellow Ironweed  
**Habit:** perennial  
**Height:** 3–6 feet  
**Flower Color:** yellow  
**Native To:** North America  
**Range:** throughout mountains and Piedmont; Florida to Texas; north to Ontario  
**Blooming Period:** August–September  
**Water Requirement:** low to moderate  
**Soil Type:** average  
**Exposure:** full sun to partial shade  
**Seed Count:** N/A  
**Seeding Rate:** N/A



**Genus and Species:** *Tanacetum vulgare*  
**Family:** Asteraceae  
**Common Name:** Tansy  
**Habit:** perennial  
**Height:** 2–3 feet  
**Flower Color:** yellow-orange  
**Native To:** Europe  
**Range:** Alleghany and Avery counties in North Carolina; throughout North America  
**Blooming Period:** August–October  
**Water Requirement:** average  
**Soil Type:** average garden soil  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** aromatic leaves



**Genus and Species:** *Verbena occidentalis*  
**Family:** Asteraceae  
**Common Name:** Yellow Wingstem, Yellow Crown-Beard  
**Habit:** perennial  
**Height:** 6 feet  
**Flower Color:** yellow  
**Native To:** North America  
**Range:** Maryland to Florida  
**Blooming Period:** late summer–fall  
**Water Requirement:** high  
**Soil Type:** rich, moist  
**Exposure:** full to filtered sunlight  
**Seed Count:** N/A  
**Seeding Rate:** N/A



**Genus and Species:** *Thermopsis villosa*  
**Family:** Fabaceae  
**Common Name:** Carolina Bush Pea, Aaron's Rod, Carolina Lupine  
**Habit:** perennial  
**Height:** 2–5 feet  
**Flower Color:** deep yellow  
**Native To:** North Carolina  
**Range:** throughout southeastern Appalachian region  
**Blooming Period:** May–June  
**Water Requirement:** low to average  
**Soil Type:** average  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** excellent cut flower; sometimes known botanically as *Thermopsis caroliniana*



**Genus and Species:** *Vernonia noveboracensis*  
**Family:** Asteraceae  
**Common Name:** Ironweed  
**Habit:** perennial  
**Height:** 6 feet or more  
**Flower Color:** purple  
**Native To:** southeastern United States  
**Range:** throughout North Carolina except outer Coastal Plain; most of the eastern third of United States  
**Blooming Period:** July–October  
**Water Requirement:** moist to wet  
**Soil Type:** average garden soil  
**Exposure:** full sun  
**Seed Count:** N/A  
**Seeding Rate:** N/A  
**Miscellaneous:** grows best on stream margins, meadows, low woodlands

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# WILDFLOWER PLANTING INSTRUCTIONS

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## For Large Areas

**1. Soil Preparation.** Proper soil preparation is one of the most important factors to ensure success in planting wildflowers. The site must first be prepared by removing all existing vegetation. Compost may be applied to provide slow-release nutrients and to aid the soil's water holding capacity.

The site is then cultivated with a series of equipment to loosen the soil (Photos 1 and 3) and create a smooth seedbed. Soil testing is important to determine soil conditions (a pH of 6.0 to 6.5 is optimal). Dolomitic limestone (Photo 2) could be added if test results indicate very acidic soil. If the results indicate a lack of nutrients, fertilizer should be added during bed preparation (Photo 5).

**2. Application of Pre-emergent Herbicides.** Research conducted over several years at N.C. State University demonstrated the advantages of pre-emergent herbicides to managing weeds in wildflower beds. Managing weeds prolongs the longevity of the wildflower bed.

**3. Planting Times and Techniques.** Best results are obtained when seeds are sown in the fall between mid-September and early November. The wildflower planting schedule follows historic small grain installation schedules. In addition, certain wildflowers can be sown in the spring between mid-March and mid-April. Examples include: Bident, Black-eyed Susan, Purple Coneflower, Gloriosa Daisy, Narrow-Leaved Sunflower and most aster species. Hydroseeders are used for large area seed application (Photo 4). Wildflower seed should be evenly distributed over the prepared soil and firmed (Photo 6) to ensure good seed-soil contact.

**4. Mulch Cover.** Seeded wildflower beds should receive a light covering of coastal bermuda hay to prevent erosion and conserve moisture to aid germination. A standard mulch blower (Photo 7) can be utilized to apply one ton of coastal hay to each acre of wildflower beds. Avoid leaving clumps of hay on the beds as they will impede wildflower seed germination.

**5. Maintenance.** Once the wildflower beds are sown, little maintenance is required (Photo 8). In mid-January, watch for annual ryegrass seed germination. Use a selective herbicide to remove grasses that compete with wildflowers for nutrients and detract from the bed's aesthetics. After the plants have flowered, do not mow until they have produced seed. In North Carolina, most wildflower beds are mowed in late November. Include "Green Manure" crops to avoid depleting the soil from years of tillage and organic matter loss.



## WILDFLOWER GROWING TIPS

### For Homeowners

Follow these steps for planting wildflowers at your own home.

**1. Do your research.** Consider varieties, seeding times, seeding rates and availabilities. Most vendors have complimentary catalogs that offer this information.

*Tips for what to plant and when:*

- ✿ October is the best time in North Carolina to sow most wildflowers—such as Red Poppy, Catchfly, Rocket Larkspur, Shasta Daisy and Lance-leaved Coreopsis.
- ✿ To achieve fall blooms, varieties of cosmos perform best when sown in early July.
- ✿ In early April, you can successfully sow Black-eyed Susan, Purple Coneflower, Biden, Gloriosa Daisy, Narrow-leaved Sunflower and most aster species.

**2. Find a good spot in your yard.** Your bed should ideally receive at least 6 hours of sun each day.

**3. Remove weeds.** Use glyphosate to remove all grasses and weed competition from your selected wildflower area.

**4. Prepare the soil.**

- a. Lightly till the soil with a rotary tiller or use garden tools to turn the soil.
- b. If possible, collect a sample of the soil and have it analyzed for free by the Cooperative Extension Service. For more information, visit [ncagr.gov/agronomi/sthome.htm](http://ncagr.gov/agronomi/sthome.htm).
- c. In lieu of a soil test, incorporate a 5-pound bag of dolomitic limestone to every 50 square feet of prepared area.
- d. Incorporate 40 to 50 pounds of compost or processed animal manure to every 50 square feet of prepared area.
- e. Using a leaf rake, smooth the soil surface.

**5. Plant your seeds.** Sow the wildflower seed into the surface of the prepared site. Do not cover the seed with soil. Don't worry, the birds will not eat the seed. Do not cover the seed with mulch as the seeds require sunlight to germinate.

**6. Water as needed.** If possible, water the site once — then walk away.

**7. Enjoy the results!**

**8. Do not mow wilted blooms.** Let the plants develop seed for next year.

## POLLINATORS IN NORTH CAROLINA

Wildflowers serve as important sources of nectar for pollinator species, including bees, butterflies and moths, birds and bats, and beetles and other insects. Different flower colors, shapes and scents attract a wide variety of pollinators.

Three-fourths of the world's flowering plants depend on pollinators to reproduce. Most fruit, vegetable and seed crops—and other plants that provide fiber, medicine and fuel—are pollinated by animals.

Some scientists estimate that one out of every three bites of food we eat exists because of animal pollinators.

In the United States, the annual economic value of pollinators is estimated at \$3 billion.

The honey bee alone contributes to the production of billions of dollars of crops in America every year. Bees are the main pollinators for fruits and vegetables.

### How it Works

Pollinators visit flowers in their search for food (nectar and pollen). During a flower visit, a pollinator may accidentally brush against the flower's reproductive parts, unknowingly depositing pollen from a different flower. The plant then uses the pollen to produce a fruit or seed. Many plants cannot reproduce without pollen carried to them by foraging pollinators.



*Credit: Information from U.S. Department of Agriculture*



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## WILDFLOWER PROGRAM FUNDING

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Revenue from the sale of personalized license plates provides the principle source of funding for the North Carolina Department of Transportation Wildflower Program. When you purchase a personalized plate you are supporting wildflowers and highway beautification with a portion of the extra fee. Many people choose to make a direct contribution to the wildflower program, since 100 percent of such contributions are used for the program. Contributions can be made to the North Carolina Department of Transportation.



For more information or to make a contribution to the Wildflower Program write to the:

North Carolina Department of Transportation  
Roadside Environmental Unit  
1557 Mail Service Center  
Raleigh, North Carolina 27699-1557